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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/466,025	12/17/1999	PATRICK A. RAYMOND	COMP:0078/FLE	9687

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INTELLECTUAL PROPERTY ADMINISTRATION
LEGAL DEPARTMENT, M/S 35
P.O. BOX 272400
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EXAMINER

HUYNH, KIM T

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 03/23/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/466,025

Applicant(s)

RAYMOND ET AL.

Examiner

Kim T. Huynh

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-8, 12-14, 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Klein et al. (US Patent 6,138,194)

As per claims 1, 6, 12, Klein discloses a computer system comprising:

- an electromagnetic energy source (fig. 5, 502, 504) located on a first side of a system board proximate an connector (col.6, lines 8-28)
- the electromagnetic energy source for generating electromagnetic energy directed at least toward a second opposing side of the system board ; (col.6, lines 8-31)
- An electromagnetic energy detector (fig.2, 210) located on the second side of the system board the electromagnetic energy detector for detecting a presence of electromagnetic energy when a hot-pluggable component is not mated to the connector and the electromagnetic energy is thereby unobstructed by the hot-pluggable component, the electromagnetic energy detector further for detecting an absence of

electromagnetic energy when the hot-pluggable is mated to the connector and the electromagnetic energy is thereby obstructed by the hot-pluggable component.(col.4, lines 30-42), (col.6, line 33-col.7, line 14)

As per claims 2, 7, 13, Klein discloses the system further comprising a processor for communicating with the electromagnetic energy detector for receiving the detection of the presence or absence of electromagnetic energy by the electromagnetic energy detector. (col.4, lines 27-42), (col.7, lines 5-19)

As per claims 3, 8, 14, Klein discloses the system further comprising a hard drive for storing an indication that the hot-pluggable component is absent when the presence of electromagnetic energy is detected, the hard drive further for storing an indication that the hot-pluggable component is absent when the absence of electromagnetic energy is detected. (col.3, lines 45-66), (col.2, lines 34-43)

As per claims 4, 18, Klein discloses the electromagnetic energy is infra-red energy magnetic energy or ultrasonic energy. (col.3, lines 27-29), (col.6, lines 62-67)

As per claim 5, Klein discloses the connector is one of an edge connector, a cable connector, a fibre channel connector and a USB connector. (col.6, lines 57-61)

As per claim 10, Klein discloses a computer system comprising:

- a first electromagnetic energy source (fig.5, 502,504) located on a first side of a system board proximate an connector, (col.6, lines 8-28) the first electromagnetic energy source for generating electromagnetic energy

directed at least toward a second side of the system board opposing the second electromagnetic energy source; (col.6, lines 8-31)

- a second electromagnetic energy source located on the first side of the system board proximate a second end of the connector, the second electromagnetic energy source for generating electromagnetic energy directed at least toward the second side of the system board opposing the second electromagnetic energy source; (col.6, lines 8-31), (col.4, lines 9-42)
- a first electromagnetic energy detector (fig.2, 210) located on the second side of the system board the electromagnetic energy detector for detecting a presence of electromagnetic energy when a hot-pluggable component is not mated to the connector and the electromagnetic energy is thereby unobstructed by the hot-pluggable component, the electromagnetic energy detector further for detecting an absence of electromagnetic energy when the hot-pluggable is mated to the connector and the electromagnetic energy is thereby obstructed by the hot-pluggable component. (col.4. col.30-42), (col.6, line 33-col.7, line 14)
- a second electromagnetic energy detector located on the second side of the system board, the second electromagnetic energy detector for detecting a presence of electromagnetic energy from the second electromagnetic energy source when the hot-pluggable component is not mated to the connector and the electromagnetic energy from the second

electromagnetic energy source is thereby unobstructed by the hot-pluggable component, the second electromagnetic energy detector further for detecting an absence of the electromagnetic energy from the second electromagnetic energy source when the hot-pluggable component is mated to the edge connector and the electromagnetic energy from the second electromagnetic energy source is thereby obstructed by the hot-pluggable component. (col.4. col.30-42), (col.6, line 33-col.7, line 14), (col.4, lines 9-42)

As per claim 15, Klein discloses locating a material which is impervious to the electromagnetic energy at a position on the hot-pluggable component is mated to the connector. (col.6, lines 8-15), (col.6, lines 61-67)

As per claim 16, Klein discloses generating the electromagnetic energy comprises the step of generating a beam of electromagnetic energy directed toward the system board. (col.3, lines 27-29), (fig.4, col.6, lines 8-28)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein et al. (US Patent 6,138,194) in view of Klein (US Patent 6,065,069)

As per claims 9, 11, Klein(194) discloses all the limitations as above except the connector is an edge connector. However, Klein (069) discloses the connector is an edge connector. (fig.2, 210), (col.3, lines 5-6)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Klein(069)'s teaching into Klein(194)'s for automatically detecting and switching between an internal pointer device without the need to either power cycle or reset the computer system.

(col.2, lines 9-13)

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klein et al. (US Patent 6,138,194)

Klein further discloses generating a plurality of independent beams (optical signals) of electromagnetic energy directed toward the system board, (col.4, lines 30-42), (col.3, lines 27-29)

Klein does not explicitly disclose a source of each plurality of beams (optical) located progressively more distant from the system board.

It would have been an obvious matter of design choice to have a source of each plurality of beams(optical) located progressively more distant from the system board, since applicant has not discloses that having a source of beams(optical) located more distant from the system board to solve any stated problem or is for any particular purpose and it appears having a source of beams (optical) located on the system board not specifically located more distant from system board would perform equally well with.

Response to Arguments

6. Applicant's arguments filed on 1/5/04 have been fully considered but are not place application in condition for allowance.

a. In response to applicant's argument that Klein (194) does not teach electromagnetic energy source. As Klein (194) notes in col. 2, lines 3-15, a bus connector for receiving a bus card and a power conductor to provide an electrical coupling between the bus card and a power source. The power switch coupled between the power conductor and the bus connector to selectively provide power to a bus card in the bus connector. In addition a movement sensor for sensing a movement of the bus card from the bus connector. The controller coupled between the sensor and power switch for activation the power switch to remove power from the bus card when sensor detects a movement of the bus card from connector. Therefore, the combination of the above produce electromagnetic energy source, thus properly stated in the rejection of record.

b. In response to applicant's argument that Klein's optical card detector 210 would not correlate with applicant's electromagnetic energy detector. As applicant notes at page 10, the source and detector combination communicate with the processor and determine the presence or absence of the hot-pluggable component. Whereas Klein(194) detector 210 include switch sensing a movement of the bus card(hot-pluggable component) from the connector. A controller 200 (processor) coupled between the sensor and switch for activating the power to remove/add power when

sensor detects a movement of the card from connector. (col.2, lines 8-15).

Furthermore, Klein discloses controller is configured to detect an insertion/removal of the card by monitoring the movement sensor (col.2, lines 34-39). It is clear that Klein(194) detector 210 is correlate with applicant's detector, thus properly stated in the rejection of record.

c. In response to applicant's argument that Klein teaches switches and detector are located within a connector, not on the system board. As Klein (194) notes at figure 4, connector is on a system board 404. The connector includes a slot to receive the card and sensor includes a switch located inside the slot and a furthest insertion distance of card into the slot and the sensor includes a switch located outside the connector which oriented so is activated by card when is mounted in connector. (col.2, lines 20-33). Thus, the prior art teaches the invention as claimed and do not distinguish over the prior art as applied.

d. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, In this case, Examiner relies on Klein (069)'s reference the teaching of edge connector. As Klein (069) notes at col.3, lines 5-6) figure 2, 210, it is well established in the art to provide an

edge connector for receiving card. In that (col.2, lines 9-13), Klein(069)'s purpose is to automatically detect the removal of an external device without the need to reset power. It is clear that Klein (069) is analogous art and therefore properly combinable for the purpose stated in the rejection of record.

Conclusion

7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (703)305-5384 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 8:30AM- 6:30PM.*

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (703) 305-4815 or via e-mail addressed to [mark.rinehart@uspto.gov]. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-7249 for regular communications and (703)746-7238 for After Final communications.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5631.

Kim Huynh

March 20, 2004

A handwritten signature in cursive script, appearing to read "Khanh Dang".

Khanh Dang
Primary Examiner